

**Dan Ross, CIO**  
**State of Missouri**

**State of the State**  
**Information Technology**  
**2007-2008 Report**



**“Connecting Missourians to education, health care social programs, and state services through efficient, reliable and available IT Systems”**

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# The Report

The State of the State Information Technology Report is an annual review of the top three information technology accomplishments of the 2007 calendar year and the top three planned projects for the upcoming year for the Missouri State Government information technology (IT) community. The report encompasses all cabinet-level agencies within the consolidated IT environment as well as other Missouri State Government agencies and offices that choose to participate.

## ***Executive Order 06-34***

Executive Order 06-34, dated October 11, 2006, provided for the renaming from the Office of Information Technology to the Information Technology Services Division (ITSD). This established and recognizes the fundamental change of Missouri State Government's IT community to a consolidated structure, better positioned to coordinate and leverage the state's human and technical resources related to information technology. The order further establishes a Chief Information Officer designated by the Commissioner of Administration and serving at the will of the Governor. Key highlights of Executive Order 06-34 give focus and direction for the Information Technology Advisory Board (ITAB), enterprise IT architecture and communication standards, statewide policies, an information technology strategic plan and the annual State of the State IT Report.

## ***Information Technology Consolidation History***

January 2005 brought with it the beginning of a new administration for Missouri State Government. Matt Blunt became the state's 54<sup>th</sup> Governor bringing with him a vision of change in how government operates. A key initiative on the Governor's agenda was the consolidation of Missouri's information technology resources. To accomplish this task the Governor appointed Dan Ross, a 36-year employee of Missouri State Government, as the state's third Chief Information Officer (CIO).

As of July 1, 2006, all information technology staff, equipment and budgets, with the exception of elected official's offices, the judiciary, those agencies governed by commissions as well as the Missouri State Highway Patrol now fall under the direction of the Chief Information Officer and are staff of the Office of Administration-Information Technology Services Division (ITSD). This consolidation of IT personnel and resources fundamentally changes the CIO position from a collaborative, decision and policy-recommending role with the departments to a full budget authority role with the ability to leverage both human and technical resources for efficient and effective government.

Consolidation of the state's information technology staff and technical resources has been a huge undertaking with the realization of significant cost savings, cost avoidance and a fifty FTE staff reduction. Those savings will continue to be realized through the sharing

of resources and staff knowledge, leveraging of the state's purchasing power to reduce procurement costs, and through efforts to reduce electric power consumption and recycle e-waste.

The Information Technology Services Division supports the following agencies:

|                                     |  |
|-------------------------------------|--|
| Office of Administration            | Department of Agriculture  |
| Department of Corrections           | Department of Economic Development   |
| Dept. of Elementary & Secondary Ed. | Department of Health and Senior Services   |
| Department of Higher Education      | Department of Labor & Industrial Relations                                       |
| Department of Mental Health         | Department of Natural Resources  |
| Department of Public Safety         | Department of Revenue  |
| Department of Social Services       | Department of Insurance, Financial<br>Institutions and Professional Registration |

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# Strategic Direction

For the fourteen executive branch departments within the Information Technology Services Division, strategic direction is set through the Chief Information Officer's Strategic Plan and the individual Service Level Agreements (SLA) with each executive branch department. A third component supporting strategic direction comes from the work accomplished through the Information Technology Advisory Board's Architecture Steering Committee.

## ***Information Technology Services Division Strategic Plan***

### ***The Mission***

The mission of the Information Technology Services Division is to provide technology services and solutions for the State of Missouri departments and agencies so that they can efficiently serve their customers.

### ***The Outcomes and Measures***

Three high-level outcomes comprise the over-arching direction of the Information Technology Services Division. With the role of providing services and solutions to the State of Missouri departments and agencies, the successful delivery of the numerous and varied support services by the division are key to Missouri State Government departments and agencies to accomplish their respective missions. Those outcomes are:

- ***Efficiently Run IT Resources and Systems***
- ***Reliable IT Systems***
- ***Available IT Resources***

The performance measurement system includes key indicators for the state network, application performance, server and storage capacity, end user support, and administrative functions such as project management and staffing levels, disaster recovery, cyber security, etc.

### ***Service Level Agreements***

The individual Service Level Agreements serve as technology business plans for each agency served and are the foundational document between the consolidated IT units and the departments. They consist of the measures from the strategic planning document, plus a prioritized list of projects set forth from the department customer to be delivered by the Information Technology Services Division. Each department meets with ITSD quarterly and annually to review the measures and update the project list.

### ***Architecture Steering Committee***

The technical direction for the state is set through the Information Technology Advisory Board Architecture Steering Committee. This committee reviews all trends and best practices in the technology field and sets the standards and guidelines to which all technology investments in Missouri adhere.

In order to maintain consistency, the steering committee continually works to review new technologies as they are introduced to the market and to sunset those current technologies as they become outdated. A full report on their methodologies, findings and artifacts can be found at <http://www.oa.mo.gov/itsd/cio/enterprisesearch.htm> .

Between these three documents, the CIO and other IT stakeholders establish a direction for Missouri.

# ITSD Statewide Accomplishments

- ***Next Generation Network***

The state has awarded the contract for the Next Generation Network initiative, which is intended to provide state government with new connectivity options to serve our current and future business needs. Implementation is beginning in late 2007. Early technologies being deployed include multi-protocol labeling switching (MPLS) and wireless networking structures.

- ***Active Directory***

Active Directory is the tool the Information Technology Services Division uses to manage the thousands of computers on the state's network. A team was formed in June, 2005 to design a plan to form a single Active Directory infrastructure. This team had to combine independent systems into one Active Directory forest. They developed a blueprint for each agency to plan, test and move staff accounts, computers, printers, servers, and all other devices to a new combined infrastructure without causing service interruptions and with minimal costs.

The implementation phase of the project began January 1, 2006 and completed on December 8, 2007 (40,231 accounts/devices). Through this consolidation this team has reduced servers, software licenses and management overhead and increased availability, reliability, and scalability. By doing this consolidation project, Missouri not only realized immediate efficiencies and cost savings, but also the ability to explore additional technologies. As a result of this effort, the Active Directory Team received the 2006 Governor's Award for Quality and Productivity for Technology in Government.

This project is now completed and has saved and/or provided cost avoidances totaling over \$2,000,000.00 which was reinvested in software licenses to move us toward a standard version of desktop software.

- ***Consolidated Email***

E-Mail is the primary communications tool utilized by the State of Missouri. As a result of the Governor's IT consolidation initiative, a team was formed in August, 2005 to design a plan to form a single email infrastructure for the consolidated agencies. This team had to combine independent systems into one email system. They developed a blueprint for each agency to plan, test and move email accounts, public folders, and email related functions to a new combined infrastructure without causing service interruptions and with minimal costs.

The implementation phase of the project began January 1, 2006 and the project completed on December 8, 2007 (30,140 accounts). Through the consolidation this team has reduced servers, software licenses and management overhead and increased availability, reliability, and scalability. By doing this consolidation project, Missouri not only realized immediate efficiencies and cost savings, but also the ability to explore additional technologies.

This consolidation project is completed as of December 2007 and the project has saved and/or provided cost avoidances totaling over \$300,000.00.

- ***Server Consolidation and Virtualization***

An ongoing project is the consolidation of servers to save resources and eliminate the need for separate agency computers rooms within the state. The Department of Revenue (DOR) moved their servers from a DOR-maintained computer room to the State Data Center (SDC) to recover space and address heating and cooling issues. The Department of Higher Education is currently moving their applications to the SDC-managed servers for the same economic benefits. During 2008 two more agency computer rooms will be vacated thru the consolidation process. The state is also aggressively moving toward server virtualization to reduce the number of physical servers in the state. This will also serve to reduce the computer room space required and the amount of energy expended to run the state's applications.

- ***Print Operation Move***

The print operation located in the State Data Center was moved in late October from the State Data Center floor to a separate room located on the first floor of the Truman Building. With a room dedicated to print services, the operation includes four InfoPrint 4000 printers with adjoining unwinders and cutters that print 36 million feet of paper per year. This move eliminated the problem of moisture, paper and toner particles in the air created by the printers and cutters which were capable of impacting SDC equipment and tapes. The move also recovered the costly raised floor space needed by the SDC for servers and storage.

- ***Enterprise Content Management***

ITSD's plans for Enterprise Content Management, which refers to technologies used to capture, store, preserve, manage, and retrieve documents and other content, will significantly increase document handling efficiency. It will provide the means to address business process issues such as auditing, knowledge sharing, personalization, records management, and standardization of content, and will allow us to provide citizens with easy online access to many documents. Current efforts include an assessment that is being conducted to identify specific short, medium and long-term content management needs for the state, and creation of an implementation plan.

- ***Missouri Accountability Portal (MAP)***

During 2007 the Enterprise Applications and Data Management team created and enhanced the Missouri Accountability Portal (MAP) site. Implemented in July 2007, the MAP provides taxpayers with a means to discover how their tax dollars have been

spent over the past 7 years. It allows agency, category, and vendor/customer searches on expenditures and economic development tax credits. The site has a flexible design which allows for future growth. An Employee Salary information path is currently being worked on and will be added on January 1, 2008. A link will be added to transfer the user to the Department of Revenue's 'Who is not Paying?' website. In 2008 an Employee branch will be added which allows taxpayers to view gross pay amounts by employee name, job title, or agency.

- ***Productivity, Efficiency and Results for Missouri (PERforM)***

The Enterprise Applications and Data Management team created and enhanced the Productivity, Excellence, and Results for Missouri (PERforM) site. Developed from October 2006 through November 2007, the online system facilitates the development of annual performance objectives and the electronic storage and reporting of employee performance records. The PERforM system provides an online "tool" to assist supervisors, managers and state agencies with the most fundamental of human resource management responsibilities: the planning, observation, evaluation and development of each employee's job performance based upon specific, measurable and objective criteria.

- ***Statewide Application Development Methodology***

The application development methodology initiative will establish a methodology for all application development staff in the Information Technology Services Division so that they can develop more efficient, reliable and available applications. The initiative focuses on the full application development lifecycle. It takes into consideration the effort from the initial planning stages of an application through the time and application is disposed. The methodology focuses on the domains of custom built applications, commercial off-the-shelf (COTS) implementations, outsourcing, third party integration, and application maintenance.

- ***Enterprise-Wide Laptop Encryption***

With advances in computer technology, laptop computers have become useful tools to meet the business needs of the State of Missouri. These devices are especially susceptible to loss, theft, and the distribution of malicious software because they are easily portable and can be used in a variety of environments. For these reasons ITSD has implemented an enterprise-wide laptop encryption policy. Standardized software, licensing and training was provided to the agencies. For 2008 ITSD is researching location technology options to further secure the state's mobile workstations.

- ***Enterprise Disaster Recovery Planning***

ITSD staff is reviewing critical application information received from various agencies and cross matching them with the agency's Continuity of Operations Plan along with the master recovery document for the state mainframe recovery operation. Plans are to negotiate a recovery contract for the recovery of critical servers that is compatible with the mainframe recovery operations. The pairing of the server recovery operation with the mainframe recovery operation should provide economies

of scale for pricing and the better utilization of resources should the activation of emergency operations occur.

- ***Missouri Business Portal***

The Missouri Business Portal provides a one-stop access point for businesses to interact with regulatory and support agencies within state government throughout the lifecycle of the business. Developed as a collaborative effort between the Secretary of State, Department of Economic Development, Department of Labor and Industrial Relations, Department of Revenue, Office of Administration and the Small Business Development Centers, the portal was launched on February 20, 2007 with a joint press conference of Governor Blunt and Secretary of State Carnahan. Since its inception, the Missouri Business Portal has recorded over 230,000 visitors.

Reaching out to the business community in this manner frees up business owners and potential entrepreneurs to focus on developing their business and creating jobs for Missourians by making compliance with state regulations as hassle free as possible. Missourians have asked the state to do more in the area of streamlining these business compliance processes and the Missouri Business Portal is meeting that challenge. The project was undertaken entirely by state employees in addition to their regularly assigned duties. No additional expense was incurred for contractors or specialized software.

- ***Unified Communications***

The state currently utilizes a variety of communications services, including traditional phone service, cellular phones, email and voice mail. These services have historically been deployed in silos, with little if any interconnectivity. A unified communications structure ties together current and future communication technologies into an integrated solution, giving the user greater control and functionality. The state plans to implement the building blocks for this unified structure starting in early 2008.

- ***IT Staff Recruitment***

The shortage of IT professionals continues to grow with the increased demand for services and an improving economy. In order to address this issue, a statewide IT recruiting committee was formed and several initiatives were undertaken to ultimately improve the number of qualified IT candidates for Missouri's state agencies. Some of the 2007 accomplishments were the creation of an IT career brochure, a centralized website for all state agencies to post their IT position openings, the formation of a career fair recruitment team, creation of a recruiting manual and a training session for career fair volunteers, representation at career fairs of local higher education institutions, military installations and the local community, and a recruitment kiosk in the virtual world of Second Life.

Another aspect of recruitment is through participation with the Jefferson City Information Technology Coalition. The coalition's current activities focus on encouraging students to consider IT careers through career fairs and IT career awareness outreach to teachers and counselors.

# ITSD Green Initiatives

The Information Technology Services Division is conscious of the impact technology and e-waste can have on the environment and on our natural resources. An initiative is underway to seek out best practices and innovative technologies that reduce power consumption, encourage the reuse of technology hardware where applicable, and look to recycle assets before looking to properly dispose of e-waste.

In addition to continuing ongoing efforts to consolidate functions and reduce power, ITSD is currently reviewing new green initiatives that include a computer recycling service that promises zero technology waste going to landfills, consolidating two more computer rooms into the State Data Center, and the reduction of power consumption through the use of unified remote management of desktops.

Green efforts are underway in the following areas:

## ***Desktop Management***

According to a recent Microsoft briefing, the largest draw of technology related power consumption is the culmination of the desktop computers, monitors, and peripherals. Of those, the monitor requires the most power. In order to facilitate a power consumption reduction, ITSD assures all desktops, laptops, monitors and printers under the Bulk Buy are equipped with *Energy Star Certification*. This certification assures that when a computer is not in use it “sleeps” or powers down to conserve energy.

In addition to requiring the Energy Star Certification, most ITSD units have replaced CRT monitors with more efficient LCD monitors. These monitors not only cost less to run, but they also operate at cooler temperatures reducing ventilation and cooling requirements.

## ***Server Consolidation***

Major initiatives to reduce the number of servers used across Missouri have yielded the elimination of over 200 servers. Teams working to consolidate functions such as email and active directory have dramatically reduced the number of needed servers. In addition, ITSD has instituted a strategy to move to both Blade and Virtual Server environments.

Virtual Servers allow ITSD to run 10 traditional servers on the power consumption equivalent of a single server. With traditional servers, much of the power consumption in the central processing units is wasted when utilization is much less than capacity. In a virtualized environment, utilization is managed to take full advantage of processing ability and the power needed.

By utilizing Blade technology we can dramatically increase the utilization of a rack. Racks require at least two circuits to regulate power. While you can fit 10 traditional servers on a rack, you can average 50 Blade servers per rack and use the power consumption per rack more efficiently. Blade servers also allow you to reduce power needed during non-peak times. This in turn reduces the amount of heat produced and lowers the power needed to cool the environment.

#### ***Circuit Reduction***

As servers are either consolidated or moved into more efficient environments, the number of circuits needed to support the state is also reduced or reallocated to other areas.

#### ***Server/Computer Room Consolidation***

Today's server hardware requires temperature controlled rooms with specifically designed cooling units. ITSD has worked with Facilities Management to close down three specially designed computer rooms and the high power consumption HVAC systems that accompanied them. By consolidating those rooms into the State Data Center, ITSD reduces energy consumption and reduces the environmental impact of the cooling unit discharge.

#### ***Desktop Reuse and Recycle***

When a desktop, or any piece of hardware, has completed its lifecycle with the state it is erased of all its data and sent to Surplus Property for resale or reuse. In the past two years over 1,500 desktop PC's were reused within state government and non-profit sectors including providing much needed support to schools who lost their desktops in an ice storm and the replacement of outdated equipment in the Department of Corrections. Other PC's were sold at auction for reuse, or used for spare parts.

The CIO's office is working with the Division of Purchasing and Materials Management to look at Green Initiatives provided by our desktop and printer manufacturers recycle programs. This will give us another option for the discarding of those devices that are not functional.

#### ***Printer and Copy Machine Toner Recycling***

Although state departments use various programs for the reuse or recycling of toner, there are options available for all users. One option includes supporting the Department of Corrections Vocational Enterprises that can "recharge" a toner cartridge up to three times for many printers.

#### ***Uninterrupted Power Supply (UPS) Reuse***

When a UPS is either at the end of its lifecycle, or in need of upgrade, ITSD currently works with our vendor partners to take the used hardware and either reuse it in its entirety, for parts, or recycle the hardware.

### ***State Data Center Efforts***

The State Data Center also collects circuit boards, CD's, floppy disks, tapes, and other storage devices and sends them to Greendisk, a company specializing in the recycling and reuse of technology mediums.

### ***State Printing***

The State Data Center also prints tons of paper each year. Whenever feasible, recycled paper is used. In turn, the SDC recycles all paper, metal and cardboard that cannot be reused. According to the State Recycling program, in a typical year, the State Data Center saves over a thousand dollars by reusing boxes that were once thrown away after one use.

In addition to supporting recycling, the ITSD has also used current technology and innovative applications to reduce printing all together. Among other efforts, ITSD changed from printed reports to digital media and realized a reduction of over 250 miles worth of paper verses last fiscal year.

# 2007 ITSD Accomplishments

## ITSD Supporting the Office of Administration

### *Mail Room Consolidation*

General Services consolidated the mail room functions of several agencies to a single location and OA/ITSD implemented a mail management system to handle that consolidation.

### *Governor's Office Correspondence Tracking*

The Governor's Office was using a constituent tracking system that was developed in 1999 under a previous administration. It could not effectively handle and track the correspondence received by the office. Because of this we implemented a new correspondence tracking system call Capitol Correspond.

### *Desktop Management System*

2007 saw the rollout and implementation of the desktop management system (Microsoft SMS) to all of the Office of Administration staff. This software allows the helpdesk technicians within OA to more effectively and efficiently respond to the nearly 1000 requests received each month. It has reduced the amount of time it takes to solve many problems, as well as provide a central repository for the hardware and software inventory of each desktop machine. This helps identify hardware for replacement and gives us valuable information when licensing software.

## ITSD Supporting the Department of Agriculture

### *Network Changes*

ITSD-MDA transitioned both the State Fair and Springfield Health Labs from T1 circuits to DSL/VPN connections, thus saving each site approximately \$4,000 annually.

### *Modem Pool Enhancement*

During 2007 ITSD-MDA implemented a timeout policy on the in-house modem pool to eliminate the 800 number from incurring extensive charges. Prior to this timeout policy it was not unusual to receive a bill of \$800 per month. The bill now averages

approximately \$350. This policy implementation has created a savings of more than \$5,000 annually.

### ***Network Upgrades***

In 2007 we made several network upgrades that included the replacement of a core router that was having issues with packet loss. The key piece of network equipment replaced was the VPN concentrator. About one-third of the staff at MDA are field staff or commute on a regular basis. With this volume of usage, the VPN concentrator was slowing. As a result of the VPN concentrator replacement, all of the accounts were migrated to a new box and the response time improved tremendously.

## **ITSD Supporting the Department of Corrections**

### ***Major Offender Management System (OPII) Enhancements***

In March of 2007 two new modules were added to the department's Offender Management System (OPII)--the Transitional Accountability Plan (TAP) Module and the Warrants Module.

TAP is a case management tool that is used for all offenders, both during their period of incarceration and during their period of community supervision. It is the primary tool for coordinating case management and reentry activities within the Department of Corrections and with partnering agencies. The TAP module defines roles and responsibilities for all involved stakeholders, including the offender and staff, the releasing authority, community, family, victims and partnering agencies producing a formal agreement to track an offender's personal assets and liabilities while establishing meaningful goals and action plans to successfully meet those goals. These items are maintained automatically by the system. The TAP was designed under the direction of the Missouri Re-entry Process Steering Team in an effort to reduce recidivism.

Warrants are issued to detain or apprehend an offender in violation status. Prior to the implementation of the Warrants Module, the process of issuing a warrant was time consuming and required multiple steps. The Warrants Module electronically stores warrant and warrant cancellation forms, thus creating efficiency by eliminating the need to manually duplicate information in the Offender Management System (OPII). The warrant and warrant cancellation form can be automatically populated with available OPII information. Additionally, it decreases the likelihood of error and improves data integrity. Electronically stored warrants can be printed from OPII and do not need to be faxed between districts when an offender is apprehended in another jurisdiction. This expedites the warrant process and improves the timely receipt of the information by law enforcement resulting in increased public safety. Electronically stored warrants/cancellations increase the overall quality and control of warrants as well as accountability.

### ***Adult Institution Local Area Network and Computer Hardware Upgrade***

This project is a continuation of the upgrades that were started in 2006. During 2007 the computer networks and computer hardware were upgraded at the following institutions: the Cremer Therapeutic Community Center; the Women's Eastern Reception, Diagnostic and Correctional Center; the Maryville Treatment Center; the Tipton Correctional Center; the Kansas City Community Release Center; and the St. Louis Community Release Center. In addition, thin client devices have been replaced with personal computers at the Southeast Correctional Center. These upgrades allow Department of Corrections' staff to be more productive in their daily work duties.

### ***Missouri Reentry Process Video Conferencing Equipment Installation***

With the adoption of the Missouri Reentry Process, the Department of Corrections is focused on preparing offenders for release through sound transition practices. Two of the key factors associated with successful reentry, as gleaned from research and data collection, are the necessity to begin reestablishing and/or enhancing family ties before the offender is released from prison and obtaining full-time employment within the first 60 days after release. One tool that aids in the transition from prison to community is video conferencing equipment. Video conferencing equipment allows offenders to begin renewing ties with their families where the families cannot travel to the prison for visits. Video conferencing equipment also allows potential employers to interview offenders prior to release.

During 2007 video conferencing equipment was installed at 19 sites including Transitional Housing Units, located prisons, as well as probation and parole offices around the state. This equipment was funded through the Serious and Violent Offender Reentry Initiative grant.

## **ITSD Supporting the Department of Economic Development**

### ***Time Management System***

A new Time Management System was delivered to the Department of Economic Development. Users of the system will be phased in over the course of 2007-2008. The system was developed using .NET 2.0 framework with a SQL Server database. The new system includes notifications, better staff management tools and more flexibility when entering time.

### ***Network Redesign***

ITSD-DED continues to make significant progress in assessing and improving the network security and infrastructure. This included implementation of a port-based network access control throughout the DED network. Network switches were upgraded to managed switches allowing remote control for the 42 Career Center locations.

### ***Migration to the Statewide Active Directory and Exchange System***

The Department of Economic Development was migrated to the Statewide Active Directory and E-mail System in 2007. The consolidated system allows for enterprise security updates, accurate inventory of hardware and software, share and transfer of licenses, as well as a standard statewide e-mail solution. This reduces duplicative spending and facilitates an improved method for managing resources.

## **ITSD Supporting the Department of Elementary and Secondary Education**

### ***Planning and Grant Tool***

This project will create a seamless electronic planning and grant tool for school districts, other educational institutions, and the Department of Elementary and Secondary Education (DESE) so that there is a comprehensive plan and consistent application process to provide information for budgets and school planning. It will replace systems that have not kept up with changing business needs and law changes. In addition, it will automate manual processes for 11 plans required by law and over 90 grants administered by DESE. The system will more closely tie the plans to the grants, thus raising the degree of accountability tied to the monies distributed. This project is a multi-year project. Calendar year 2007 saw the completion of the requirements and analysis phases for the Planning Tool and the first phase of the Grant System.

### ***High-Speed Connectivity***

In 2007 ITSD-DESE established high speed connectivity to all 37 State Schools for the Severely Handicapped. This enables the staff at those locations to better interact with their peers and will open up opportunities for better collaboration. It also reduces the amount of duplicate work needed due to the lack of connectivity, such as entering student information at the school and at the central office. This project replaced three high-cost circuits with low-cost circuits and the savings were used to fund the other 34 locations.

### ***Improved Data Collection***

Extraction files were written for the purpose of submitting data to the U.S. Department of Education in order to populate their EDEN database. This effort reduces the data collection burden on both the state and federal government by collecting the data one time instead of multiple requests for the same type of data (as was done in the past).

## **ITSD Supporting the Department of Health and Senior Services**

### ***Active Directory and Exchange Migration***

By the end of 2007 ITSD-DHSS will have migrated from Novell-based networking and e-mail services to the Microsoft Active Directory and Exchange, per the statewide directory service and e-mail consolidation effort. Migration will occur in December 2007.

### ***Network Conversion***

In 2007 ITSD-DHSS has continued its conversion of Frame Relay circuits to VPN over DSL/High-Speed Internet, converting 143 of a potential 165 circuits. By converting away from Frame Relay circuits to DSL, there was an increase in bandwidth to improve response times for DHSS applications.

### ***DB2 Implementation***

IBM relational database management system (DB2) was implemented for connection to the SAM II data warehouse, replacing the EDA/i-Way client. Previously, ITSD-DHSS staff had to purchase a license for EDA/i-Way client to be able connect to the SAM II data warehouse. The DB2 client is provided at no cost, resulting in a licensing fee savings.

## **ITSD Supporting the Department of Higher Education**

### ***Access Missouri Financial Assistance Program***

The Department of Higher Education (DHE) completed the changes needed to add a module to the existing Financial Aid for Missouri Undergraduate Students (FAMOUS) system to incorporate the new Access Missouri Financial Assistance Program.

### ***Website Redesign***

The Department of Higher Education website was completely redesigned and reorganized. New architecture, graphics, content, tools, functionality and features were added. There were extensive enhancements to the Lender List and the Publication Order Form system.

### ***Image System Upgrade and Migration to SDC***

An upgrade and migration of the department's Imaging System was completed. This was an upgrade of the software from Stellent Version 3.1 to Stellent Version 7.6. In addition, the Imaging system was moved from older physical servers located at DHE to VMware servers located at the State Data Center (SDC) allowing the number of physical servers to be reduced from three to one.

# **ITSD Supporting the Department of Insurance, Financial Institutions and Professional Registration**

## ***Department Merger***

The transfer of the Divisions of Finance, Credit Unions and Professional Registration from the Department of Economic Development to the Department of Insurance, Financial Institutions, and Professional Registration was completed in 2007. This task involved relocating network connectivity, help desk services, and web-related services for the Division of Finance, Credit Unions and Professional Registration from the Department of Economic Development to the Department of Insurance, Financial Institutions, and Professional Registration. All web-related content had to be updated to reflect this change. Additionally, several supporting systems were reconfigured or redeployed including the GWI Helpdesk and Microsoft Exchange email.

## ***Network Migration/Consolidation***

All divisions of the Department of Insurance, Financial Institutions and Professional Registration were migrated to the Office of Administration consolidated network. This task involved the move of all department technology users, applications and supporting hardware. Items included in this move were the implementation of a common Active Directory structure, consolidation of e-mail servers in the State Data Center, changes to remote connectivity and the migration of network servers. This consolidation provided the ability to leverage the total cost of ownership by reducing the expense of maintenance contracts, operator labor, and statewide expertise. The continuing server consolidation also promises improvements in security and disaster recovery capabilities.

## ***Improved Data Sharing***

This item addressed specific issues with previous shortcomings in the data sharing process with the Department of Revenue concerning HB 600 within multiple divisions. HB 600 requires all the division's licensees to be checked for payment of State of Missouri taxes prior to licensing or license renewal. Improvements included review and simplification of the workflow process and the automation of process steps. This resulted in the better communication and fewer false positives reported.

# **ITSD Supporting the Department of Labor and Industrial Relations**

## ***Electronic Folders (eFolders) Application***

The eFolders application is an advanced automated document workflow application to support the Division of Employment Security's Regional Claim Centers. The application automates much of the processing of unemployment claims documents while expanding

the use of the existing imaging applications, as well as integrating mainframe and PC based information. Additionally, the application provides an immediate reduction in paper, associated manual processes, and improves timeliness of unemployment claim processing. The eFolders application went into production in August 2007.

### ***First Report of Injury (FROI) Application***

The First Report of Injury (FROI) application allows employers to report work-related injuries electronically from the Division of Workers' Compensation web site. The application provides employers with a third option for the electronic submission of the FROI, with the other two options being traditional Electronic Data Interchange (EDI) and EDI FROI directly submitted to the state's secure server. The completion of the web-based FROI will allow the Division of Workers' Compensation to mandate electronic reporting for the FROI. The First Report of Injury application went into production in March 2007.

### ***Medical Fee Dispute (MFD) Application Upgrade***

The Medical Fee Dispute (MFD) application upgrade provides additional functionality within the Automated Integrated Claim System (AICS). This application allows the Division of Workers' Compensation to send MFD acknowledgment letters for MFD Answers received from Insurance Companies; send MFD Award letters to health care providers, insurers, and attorneys for MFD Awards issued by legal staff. The application also automatically indexes MFD documents into the DWC imaging application. These upgrades eliminate manual processes, saving DWC staff resources and provides increased functionality for DWC to meet the growing needs in this business area. The MFD application went into production April 2007.

## **ITSD Supporting the Department of Mental Health**

### ***CIMOR Services and Billing System Implementation***

The CIMOR Services and Billing Subsystem was implemented at all DMH operated facilities and at the Division of Alcohol and Drug Abuse contracted providers. The system enables entry of services delivered and automates billing and payments through Medicaid and SAM II.

### ***CIMOR EMT Subsystem Enhancement***

The CIMOR Event Management and Tracking (EMT) subsystem was enhanced to include additional events concerning possible staff misconduct, medication errors and accidents. The enhanced functionality supported recommendations aimed at improving the overall quality of care for DMH clients.

### ***IT Infrastructure Upgrades***

ITSD-DMH made major upgrades in the IT infrastructure for DMH during 2007. All 4,500 of the department's workstations were refreshed, most of which were five or six years old. In the process, a hardware independent standard software image was deployed to increase reliability and our ability to troubleshoot problems. ITSD-DMH also participated in the statewide email and Active Directory consolidation projects and began the DMH statewide rollout of a help desk tool as part of a plan for a statewide help desk. These accomplishments were due, in large part, to the facility-based IT staff and their continued efforts and accomplishments toward better communication, cooperation, and definition of common standards and procedures.

## **ITSD Supporting the Department of Natural Resources**

### ***Department of Natural Resources Permit Assistant Application***

The Permit Assistant simplifies a once-cumbersome process and helps Missourians in their efforts to protect Missouri's air, land and water quality. The biggest payoff for Missouri's citizens from the Permit Assistant is a cleaner environment. The DNR issues nearly 150 different types of permits, which range from very simple ones like open burning permits, to very complex ones like an air permit. Small to medium-sized companies, cities and counties may not be able to afford outside help, relying instead on staff that often have several varied responsibilities. The Permit Assistant includes GIS mapping capability to help anyone determine what environmental permits will be needed based on their business or activity.

### ***GIS Interactive Internet Mapping Services***

Geographic Information System (GIS) Interactive Internet mapping services were made available to the public, providing a wide variety of environmental information in an easy to understand visual format. These geographic information system services allow the department to make spatial data and metadata available through an interactive map interface that works with common web browser software. This enables the agency and the public to make informed decisions about Missouri's natural, cultural, and energy resources by making environmental information highly available in an intelligible format.

### ***Facility Profiler Identification System***

Facility Profiler serves as an integrated facility identification system. The new system aggregates and centralizes informational data about sites or facilities which is stored in separate, mutually exclusive systems. Facility Profiler provides a broad multimedia view of potential environmental areas of interest throughout the state for analysis by DNR management to provide a cleaner environment to all Missourians.

## **ITSD Supporting the Department of Public Safety**

### ***Office of Homeland Security – Emergency Response Information Plan***

The Missouri Office of Homeland Security along with other state agencies has implemented the Emergency Response Information Plan (ERIP). The ERIP system provides educational facilities (K-12, Child Care and Higher Education) with the methodology to create emergency response plans and assemble critical site information. ERIP will help schools and first responders mitigate emergencies whenever possible and achieve the fastest proper response for emergency situations.

## **ITSD Supporting the Department of Revenue**

### ***Titling and Registration Internet Processing System (TRIPS)***

In 2007 TRIPS was expanded to include all miscellaneous inventory transactions of motor vehicle and marine processing. This provided a single transaction processing system for offices across the state, thus eliminating the need for third party software.

### ***Taxation On-going Tax Compliance System (TCS)***

Work on the Department of Revenue's Tax Compliance System (TCS) project achieved significant progress during 2007. The TCS data warehouse was implemented in production during this timeframe, and now allows data comparison and reporting across several mainframe systems. As of November 15, 2007, this system has successfully collected a total of \$30,767,455.40 in additional taxes that would not have been collected without this system.

### ***New Sales Tax Revocation Search Available***

On August 28, 2007, the Sales Tax Revocation Search function went live on the DOR Internet website. This function allows citizens to search for businesses with a revoked sales tax license. The web page allows the public to search by county, city, business name, or Missouri Tax ID Number (Retail Sales License Number). The new web page is located at: <http://whoisnotpaying.mo.gov> .

# **ITSD Supporting the Department of Social Services**

## ***Family and Children Electronic System (FACES)***

The Family And Children Electronic System (FACES) is being developed under a federal program to create a Statewide Automated Child Welfare Information System (SACWIS). The goal of this application is to create a comprehensive automated case management tool that supports social workers' foster care and adoptions assistance case management practice. Additionally, states are encouraged to add complementary functionality, such as that to support child protective and family preservation services, thereby providing a unified automated tool to support most, if not all, of the child welfare services.

During 2007 changes were implemented to improve performance for the phases already put into operation (Eligibility, Protocols, Investigation and Assessment). The fourth phase and largest component, Case Management, was implemented statewide. Analysis and design of the fifth and final phase, Resource and Financial Management, is underway.

## ***MO HealthNet***

The Missouri Health Improvement Act of 2007 (SB 577) reformed the Missouri Medicaid system creating the state's new eligibility-based healthcare system named MO HealthNet. This legislation contained several components incorporated into multiple application systems. Changes completed during 2007 include:

- Revisions to hundreds of system-generated letters, documents, and reports applying changes in terminology and renaming Division of Medical Services to MO HealthNet Division.
- Implementation of the new Ticket to Work Health Assurance Program for the Income Maintenance eligibility and Premium Payment systems, along with a new automated budget calculator to assist Eligibility Specialists with calculating eligibility and premium payment levels for clients.
- Revisions to Income Maintenance (IM) system and Family Assistance Management Information System (FAMIS) excluding earnings for clients working in sheltered workshops when determining eligibility for Medical Assistance.
- Revisions to Income Maintenance (IM) system and Family Assistance Management Information System (FAMIS) disregarding Social Security Cost of Living Adjustment increases until the annual Federal Poverty Level changes are posted the following April.
- Revisions to enhance the State Children's Health Insurance Program (SCHIP) and integrate the new definition of "affordable" health care coverage.
- Added eligibility programming for Uninsured Women's Health Program to FAMIS.

## ***Network Consolidation***

In accordance with the network consolidation initiative, state department locations were consolidated onto the wide-area network infrastructure at locations where it was cost

beneficial. In 2007 these locations included the Missouri Veterans Commission, the Department of Mental Health, the Department of Public Safety, the Department of Health and Senior Services, and the Department of Revenue. At co-located sites, i.e., sites housing DSS workers as well as workers from other departments of state government, core network equipment were consolidated, freeing up equipment to be used elsewhere. At co-located sites, network bandwidth has also been consolidated and in many cases increased at a reduced cost. Also, an initiative was completed to implement one network monitoring tool for the OA Information Technology Services Division consolidated agencies. This allows more uniform reporting of networking statistics and provides better accountability of network resources.

# 2007 Agency Accomplishments

## Department of Conservation

### *High-Speed Connectivity*

Recognizing the efficiencies gained by employees having real-time access to state information and systems, high-speed computer connectivity was supplied to all field offices. Due to the geographically distributed and remote nature of some field offices, the project used a combination of DSL, cable, or in some cases, satellite connectivity to replace traditional dial-up service. This initiative provides all employees access to state IT assets and the Internet via their assigned department office. The cost of this monthly service was offset by the reduction in long distance direct dial costs the offices were incurring.

### *VOIP Pilot Project*

The agency conducted a pilot installation of Voice Over Internet Protocol (VOIP) phone systems in several locations. These phone systems utilize existing computer wiring and data networks to provide telephone connectivity to the individual's desk. Sales in the industry of these types of systems have surpassed traditional PBX sales, so adoption of this technology will ensure the viability of our phone systems for years to come. One benefit already realized has been the significant reduction in reliance on technical staff to move telephones. In the past, it required a technician to perform the switch of a phone number from one location to the next. Now the user simply picks their phone up and plugs it in at the new location. No IT involvement is now required.

### *Integrated Data Framework*

Programming work began on the Integrated Data Framework. This project allows for the linking of various computer systems providing enhanced data access and one source of the "truth" in a data warehouse. The multi-year project will link over twenty existing data systems and provide for a geographic representation of agency accomplishments and expenditures. Since the majority of what the agency does is land-based, this enhanced system will give managers a valuable tool to analyze and evaluate the effectiveness of conservation programs. The initial component will link all expenditures and provide for a location-based time keeping system.

# **Missouri State Highway Patrol**

## ***Investigative System of Reporting***

One of the top planned projects listed for 2006 was the Patrol Investigative System of Reporting (CI20). This project was suspended due to complexities discovered in the requirements phase, which added significant effort and time to its completion. This extension, combined with the planned purchase of an off-the-shelf Records Management System, led Patrol management to make a decision to suspend the project. As an alternative, efforts have been initiated to put together a sequence of procurement documents intended to modernize a number of Missouri's Criminal Justice Systems. This endeavor is termed the Missouri Criminal Justice Modernization Project (MCJMP). The past year has seen several user entity meetings and requirements meetings resulting in all-inclusive RFP's for the following Criminal Justice modules: Computerized Criminal History, Statewide Message Switch, Computer Aided Dispatching, Mobile Computing Services, and Records Management System. The first two (modules) were released to the Office of Administration's Division of Purchasing and Materials Management in the last quarter of 2007.

## ***Time Reporting System***

In late 2007 a Time Reporting System was implemented to track time and accounting for all employees of the MSHP. The system is used to specifically track time entries, compensatory time balances, and accrued leave. Time can be audited by the system for completeness and accuracy to the greatest degree possible based upon available data. The entire system comprehensively covers time reporting workflow, including manager approvals and reports, automated data capture in DB2, transmission to the SAM II system and retention of time records within the Patrol's systems. The system is also capable of producing output transactions sufficient to update SAM II with time reporting data related to compensatory time balances and accrued leave. These balances are always important as no time may be taken until it is posted via the SAM II system. Without accurate and timely calculations of these totals, accurate compensation and leave requests and approvals would be unobtainable.

## ***In-Car Video System***

A statewide In-Car Video system was bid, contracted, piloted, tested and is being implemented into production in a phased approach. Statewide implementation is scheduled for completion in mid-2008. The old analog video systems were failing and are being replaced to take advantage of the efficiencies of today's digital technology.

## **Missouri Lottery**

### ***Automated Data System Replacement***

Included within the current contract that supplies lottery ‘Scratcher’ tickets, is a vendor supplied system for providing automated data to lottery staff working outside physical offices. These staff members currently have tablets loaded with web-based reports, which are used for communicating information to lottery retailers and players. The proposed package was accepted as a replacement to the existing system, as it was determined that it was more cost effective and timely to implement the new system versus updating the existing software. The new application, OrderPad Enterprise, is in the final testing phase as of this writing and will be fully implemented within the first weeks of calendar year 2008. There was a significant effort on the part of the Missouri Lottery IT staff in developing the many data interfaces, as well as organizing and streamlining the application functions.

### ***Web Site Redesign***

The Missouri Lottery redesigned its web presence to freshen up its look, enhance the experience of the user, and to significantly improve the site’s performance and compliance with 508 standards. Meeting these standards ensures that all citizens have access to the information and services provided through the web. Key features of this new look are cleaner standardized pages, improved flexibility in the design, and implementation of numerous ideas submitted by lottery players through the feedback forum of the website.

### ***Million Dollar Raffle Game***

Early in 2007 the Missouri Lottery Commission approved the creation of an online raffle game in order to increase the revenues for fiscal year 2008. A very aggressive time schedule existed for the online vendor and the Missouri Lottery staff to meet a fall start date with a scheduled drawing near the holidays. The addition of a new online product affects a significant portion of the Lottery’s business systems including accounts receivable, prize payment and management information subsystems. Software was developed to manage the new marketing needs with added flexibility to allow staff to continually monitor and adjust these new programs. The efforts put forth resulted in a successful rollout of Million Dollar Raffle on schedule and with very minimal problems.

## **Department of Transportation**

### ***Implementation of Electronic Bid Letting***

In January 2007 a system was implemented through BidX that allows contractors to submit their bids electronically. The efficiency of the BidX system has resulted in fewer hours needed to verify the submitted bids and the discontinuance of the monthly bid opening public reading.

In August 2007 a system was implemented through INDOX that provides an electronic plans room. All plans, drawings and attendant documents reside in the web-based plans room and can be accessed by both the public and contractors. Contractors can choose to download or print plans.

### ***Wide Area Application Services (WAAS) Implementation***

The goal of this project is to implement wide area applications services, and caching technology at all MoDOT project offices. This improves employee productivity by reducing the time required to access software applications and increases application responsiveness at those offices.

MoDOT should also see improved responsiveness of applications in construction project offices, a reduction in the time devoted to computer related tasks, as well as an increase in time used for construction related tasks and employee productivity.

### ***Highway Patrol Network Sharing***

The project for the Highway Patrol Network Sharing is a partnership with the Missouri State Highway Patrol to consolidate Wide Area Network (WAN) data circuits. MoDOT worked with the Highway Patrol to identify locations where both agencies are either in the same building or within range of a wireless bridge connection.

Previously, MoDOT and the Highway Patrol were each paying for their own data circuit. The Highway Patrol network sharing effort eliminates one of the data circuits so both agencies share one circuit. This network-sharing endeavor saved the State of Missouri money by eliminating the cost of two data circuits to the same location.

MoDOT currently has 11 HP Zone offices complete: D1 Cameron, D1 Maryville, D2 Chillicothe, D3 Hannibal, D3 Troy, D4 Harrisonville, D4 Clinton, D6 Festus, D7 Collins, D7 Butler and D9 Cuba. Three more HP Troop Headquarters are planned for future installs based on how the Springfield location goes. Those locations are D1 St. Joseph, D2 Macon and D9 Willow Springs.

## **Office of the State Treasurer**

### ***Recon Inquiry***

In 2007 the Missouri State Treasurers Office (STO) successfully developed an in-house reconciliation application for our banking division. This web-based system is currently being used to reconcile bank statements and balances. By utilizing innovative technology we were able to create a system with multi-functional user benefits to improve reporting and data integrity. As a result of bringing the system in-house and managing from within, STO will have a significant cost saving in licensing and maintenance fees.

### ***Check Management System***

To meet the State fiduciary responsibility of effectively coordinating receipt and payment activities, general disbursement and deposit accounts, the Treasurer's Office has created a check management system. This system incorporates key objects to meet intergovernmental needs, key infrastructure, and information security within the Banking Division. This check management system now gives STO reliability, efficiency, integrity and the ability to achieve the highest standards of care for state funds for Missouri.

### ***Hosting Services and Security***

Enhancing security has always been a focus at the State Treasurers Office. In 2007, our office implemented a Storage Area Network (SAN) and additional firewalls to our network. We have improved desktop and server security with additional software solutions at a cost savings by utilizing statewide enterprises level agreements. A new web email solution allows employees to access information quickly and securely. As a whole, these solutions help identify and mitigate vulnerabilities while improving system administration.

# 2008 ITSD Planned Projects

## ITSD Supporting the Office of Administration

### ***Fleet Management System Module***

The OA Strategic plan calls for a central pool of state vehicles located in Jefferson City. With this direction, General Services would like an additional module developed for the Fleet Management System that would serve as a Car Pool Reservation System. This system will track all the state vehicles in use and allow for reservations by state employees.

### ***Risk Management System***

The Risk Management System is one of the oldest systems supported by OA/ITSD staff and over the course of years; many changes and additions have been made to the system. Because of all the changes, the mainframe screens are becoming very cumbersome to use. General Services would like a completely new Risk Management System that is browser-based and more flexible to the changes that occur each year.

### ***FMDC Time Management System***

In July 2007 FMDC consolidated all the facilities staff from various agencies into OA. As a result of this consolidation, OA/FMDC staff are now located across the state in various facilities and, as a result, there is no easy uniform way of doing time accounting for these individuals. OA/ITSD will be developing an Internet-based Time Management System for FMDC that will allow all FMDC to complete their time from any computer with Internet access.

## ITSD Supporting the Department of Agriculture

### ***Imaging System***

ITSD-MDA plans to implement an imaging system that can be easily migrated to the state's direction of Enterprise Content Management. Elimination of the RVI imaging on the AS/400 is necessary in order to follow the long-term goal of eliminating the AS/400.

### ***Website Redesign***

Redesign the Missouri Department of Agriculture's website will be a project in 2008. The goal is to make the website as informative as possible with an easy flow to the various departments that comprise the Department of Agriculture.

### ***Helpdesk Implementation***

2008 will see the implementation of the GWI helpdesk application. This will allow staff to more effectively track work flow, see where our majority of the work is going, and create a better knowledge base for the entire department.

## **ITSD Supporting the Department of Corrections**

### ***Adult Institution Local Area Network and Computer Hardware Upgrade***

This is a continuation of the upgrades that were started in 2006. During 2008 the computer networks and computer hardware will be upgraded at the following institutions: the Fulton Reception and Diagnostic Center, the Northeast Correctional Center, and the Ozark Correctional Center. These upgrades allow Department of Corrections' staff to be more productive in their daily work duties.

### ***Offender Management Information System Replacement***

During 2007 the ITSD-DOC began exploring possible methods for replacing the information systems currently utilized by the Department of Corrections to manage offenders. During 2008 the ITSD-DOC will continue to review the options available and develop plans for replacing those systems. The current systems were developed in outdated technologies and are difficult to maintain and use. Replacing these systems with systems based on current web technologies will reduce maintenance costs and improve Department of Corrections' staff productivity.

### ***Document Management***

The Department of Corrections maintains a large quantity of paper files on offenders. During 2007 DOC-ITSD began developing plans for implementing a document management system in the Department of Corrections. This effort will continue in 2008 with intentions to begin the first deployment during 2008.

## **ITSD Supporting the Department of Economic Development**

### ***Next Generation Network (NGN) – WAN Location Upgrades***

The NGN contract includes aggressive pricing for WAN connectivity across the State of Missouri. This will be very beneficial in upgrading bandwidth for the existing DED/DWD Career Center locations. ITSD-DED plans to utilize this contract to give the agency remote locations higher speed network connectivity.

### ***Toolbox II***

The Division of Workforce Development selected a Custom Off-the-Shelf software solution as the replacement to their existing case management system. The system is developed in Java, Oracle Forms with an Oracle Database. The system is scheduled to be in production by Spring/Summer 2008.

### ***Customer Management System Analysis***

ITSD-DED will begin analysis phase for enhancing the existing Customer Management System (CMS). CMS was originally designed with the idea of being the central repository for all financial offerings for the Department of Economic Development. Programs incorporated into the system include tax credits, grants and loans. The existing system was originally implemented in 2001.

## **ITSD Supporting the Department of Elementary and Secondary Education**

### ***ePeGS – Electronic Planning and Electronic Grant System***

This project will create a seamless electronic planning and grant tool for school districts, other educational institutions, and DESE so that there is a comprehensive plan and consistent application process to provide information for budgets and school improvement planning. It will replace systems that have not kept up with changing business needs and law changes. In addition, it will automate manual processes for 11 Plans required by law and over 90 grants administered by DESE. The system will more closely tie the Plans to the Grants, thus raising the degree of accountability tied to the monies distributed. This initiative is a multi-year project. Calendar year 2008 will see the implementation of the Planning Tool as well as the first phase of the Grant system, which will include two grants. In addition, analysis will begin on the second phase of the Grant system as well as the accountability and evaluation phase for Plans.

### ***Licensure System***

The project is intended to be a computerized system providing a complete record of the components and decisions required for issuing, revising, renewing, and revoking a Missouri certificate of license-to-teach. Processes used by the Educator Certification

section within the Department of Elementary and Secondary Education will be improved in order to increase the efficiency and productivity of the section. In addition, more automated processes will be put in place to ensure the accuracy of data used in the certification of educators including automating some processes for accessing external data sources used to verify convictions or other unacceptable behavior. This project is anticipated to begin in the 2008 calendar year in cooperation with at least one and possibly two other states.

### ***VOIP and Network Upgrade***

In 2008 the implementation of a VOIP system and network upgrade for the MO School for the Blind will be accomplished. The infrastructure at the school is outdated and this upgrade will allow the staff to better serve the students. The phone system is at its' end of life and the VOIP system will cost less than a regular phone system and will provide a cost saving due to existing DESE VOIP system already in place.

## **ITSD Supporting the Department of Health and Senior Services**

### ***Server utilization assessment***

ITSD-DHSS will perform a business analysis of server utilization with the intent of consolidating applications. Consolidation will free up existing hardware and improve disaster recovery capability.

### ***Server Virtualization***

Implementation of server virtualization in the data center will be accomplished to provide an improved level of redundancy for day-to-day operational needs, a more effective use of resources, and disaster recovery.

### ***Software Upgrades***

Upgrades of several internal software applications written/developed in older/out-of-date programming languages will be a priority for 2008.

## **ITSD Supporting the Department of Higher Education**

### ***Bright Flight Project***

Due to SB389 there are extensive changes planned in the Bright Flight Scholarship program. It will be necessary for ITSD-DHE to modify the Financial Aid for Missouri Undergraduate Students (FAMOUS) System to incorporate them. There are additional

modifications and reports needed to assist with the scholarship award score change of 30 to 31 this year.

### ***Website Enhancements/Additions***

The department has requested several enhancements and additions to their website. These include expanding legislation tracking, adding a publication satisfaction survey, and developing financial aid calculators.

### ***Websphere Upgrade***

The Department of Higher Education is currently using Websphere Version 5.0 which will no longer be supported as of March 2008. It is important that DHE move to a current Websphere environment.

## **ITSD Supporting the Department of Insurance, Financial Institutions and Professional Registration**

### ***“State Based Systems” Implementation (SBS)***

State Based Systems (SBS) is an electronic system developed by the National Association of Insurance Commissioners (NAIC) in partnership with state insurance departments. SBS provides a web application that automates and streamlines state insurance department regulatory processes. SBS is designed to assist with the full life cycle of insurance regulatory activity including licensing, consumer services, product approvals, revenue management and a host of other activities. This system will replace the department's primary insurance regulatory system, thus negating the need for a major overhaul of the existing system to meet current standards and support requirements.

### ***Website Review and Redesign***

This project will review the current Insurance, Professional Registration, Finance and Credit Unions websites for potential redesign considerations. The review will include the parent site along with its sub-sites in order to ensure services and information provided is available in the most suitable form. The focus will be on structure, information content, and usability.

### ***LEAD-R System Enhancements***

The Professional Registration project involves modifying and updating the existing LEAD-R system to incorporate needed enhancements to perform additional data entry validation and improve error processing. This will involve extensive application development for the data collection portion of the system. Additional database development is also required in order to facilitate the changes to the system. These enhancements will allow for better data filtering and improved user-specific reporting from the system. Improvements will include changes to the web application interface for

both the licensees that volunteer and those that use the information in the event of a disaster.

## **ITSD Supporting the Department of Labor and Industrial Relations**

### ***Unemployment Insurance Modernization – Phase 1***

Unemployment Insurance Modernization is a phased project that will ultimately replace the current business systems that supports the operations of the Division of Employment Security (DES). The current major business systems has been in production since 1968. Phase 1 of the project a business analysis/business process reengineering of the DES is currently underway and will be complete in 2008. Deliverables from Phase 1 will include requirements and recommendations that will subsequently be used in Phase 2 for the design, development and implementation of the new system. Phase 2 is estimated to run five to six years.

### ***Workers' Compensation Modernization – Phase 1***

Workers' Compensation Modernization is a phased project that will ultimately replace the current business system that supports the operations of the Division of Workers Compensation (DWC). The current business system has been in production since 1997. Phase 1 will be to conduct a business analysis/business process reengineering of the DWC. Phase 1 will encompass approximately 18 months and will provide a complete business analysis of the DWC business operations. Deliverables from Phase 1 will include requirements and recommendations that will subsequently be used in Phase 2 for the design, development and implementation of the new system. Phase 2 is estimated to run three to four years. Bids for Phase 1 are due December, 2007 with the award expected by February 2008.

### ***Missouri Employer Tax Registration System***

Design, develop and implement an Internet/Intranet-enabled Missouri Employer Tax Registration System (METRS) for the Division of Employment Security (DES). This system will allow DES to provide employers with a secure, private, and convenient method for filing employer registration information, determining employer liability, and offering a link to file quarterly tax and wage reports and submit payments online. Customers of this system include both employers and DES staff. Employers include those that are liable and potentially liable. The project is scheduled to begin in January 2008.

### ***Division of Employment Security IVR Infrastructure Upgrade***

The Interactive Voice Response (IVR) Infrastructure Upgrade project is to implement a new system that will direct calls to DOLIR's new Cisco IP Contact Center and Call Manager systems. This new system will replace the existing Nortel Periphonics IVR systems at the call center locations in Jefferson City, Kansas City, Springfield, and St.

Louis. The current systems are at the end-of-support as of July 1, 2008. This will require new systems for production and development/testing to be implemented and five applications currently being used on the IVRs to be converted to work with the new systems. The objective of this project is to have a new system implemented, tested, and in production no later than May 1, 2008.

## **ITSD Supporting the Department of Mental Health**

### ***Business Intelligence System***

In 2008 we intend to make major improvements and enhancements to the DMH Business Intelligence system. This will include business area tables that are easy-to-use and accessible with standard reporting tools or with a specialized interface for creating hundreds of custom filtered reports. It will also include several analytic data marts that may be used for reporting, Online Analytic Processing or for executive dashboards.

### ***CIMOR Enhancements***

CIMOR will continue to be enhanced to provide complete billing functionality for all payers and billing types. Other enhancements will include full support of the new Access to Recovery program and further improvement of the Event Tracking Management subsystem.

### ***Help Desk Tool Implementation***

ITSD-DMH will work to complete the implementation of our statewide help desk tool and operations to enhance response time and improve the gathering and application of help desk metrics.

## **ITSD Supporting the Department of Natural Resources**

### ***DNR Enterprise Content Management***

This system will better manage the capture, storage, security, revision control, retrieval, distribution and preservation of documents and content to more effectively meet DNR business goals and serve the public.

### ***Geographic Information System***

The department is taking steps to improve its ability to respond to environmental incidents and emergencies and to respond to requests for information through the use of geographic information system (GIS) technologies. A growing interest in leveraging the utility of maps and GIS to assist in all aspects of disaster management and mitigation has

set the course for creating more robust solutions for ensuring that spatial data and applications are available for use during emergencies. In addition, the department has taken initial steps to use its vast collection of GIS data to automate responses to requests for information about features of environmental interest in areas where development projects are scheduled. A single project may require several requests for information during different phases of execution, and the department is planning to expedite and standardize their responses to these requests through the expanded use of GIS.

### ***Missouri Soil and Water Information System (MoSWIMS)***

MoSWIMS is a web-enabled application that will assist in processing and tracking Missouri landowner financial assistance applications for Special Area Land Treatment and Cost-Share Programs. The system will be used by the DNR Soil and Water Program and the 114 Soil and Water District offices.

## **ITSD Supporting the Department of Public Safety**

### ***Missouri Emergency Response and Information System (MERIS) Project***

The Department of Public Safety (DPS), Office of Homeland Security, and the State Emergency Management Agency (SEMA) are jointly pursuing a statewide solution for incident management, resource tracking, communications, and asset request processing during emergency or crisis situations, to include all state agencies, local municipalities and private organizations involved in emergency management and homeland security.

### ***Communication Interoperability***

This project promotes interoperable communications between state, county, and local entities along with Missouri's Critical Infrastructure (CI). It is a vital component of Missouri's State Homeland Security Strategy (SHSS), which provides support of first responder communications and enhanced 911 developments to the National Infrastructure Protection Plan and CI programs. This project will increase Missouri's public safety community's ability to talk within and across agencies and jurisdictions via radio for the exchange of voice or data.

### ***Critical Infrastructure and Key Resource Database***

This project will provide a proactive, comprehensive list of key resources and critical infrastructure in preparation for state data calls which will incorporate the flexibility to make substitutions or additions as required on an annual basis.

## **ITSD Supporting the Department of Revenue**

### ***Integrated Motor Vehicle and Driver License System***

This initiative is a multi-year project, scheduled over a five-year period, and ultimately will provide a single view of our customer, motor vehicles, driver licensing, and dealer licensing. These new capabilities will provide law enforcement with significantly better information. Law enforcement will now be able to know whom the driver of a vehicle is without having to physically walk up to the vehicle. The new system combines the 23 motor vehicle and driver license systems currently in use, providing a single system to process all vehicle and driver license business transactions for our customers. Some of the systems in use today were created using techniques which seem antiquated when compared to modern legacy technology. There have been significant improvements in technology in recent years and this system will allow the Department of Revenue and the State to take advantage of that new technology.

### ***License Plate Re-issuance***

DOOR is on track to start reissuing plates on July 1, 2008. This is six months prior to the deadline established by Legislation in 2007, which directed and authorized the department to begin re-issuance of Missouri motor vehicle license plates by January 1, 2009. Re-issuance includes the design of the physical plates, coordinating changes in the manufacture of the plates and determining the appropriate configurations of the plates. The configuration determines the appropriate sequence of letters and numbers for the license based on the vehicle type and the license type. This project will encompass all of the major motor vehicle systems and several minor ones. It will affect approximately 30 million license plates and every Missouri motorist from motorcycles to large commercial trucks.

### ***Call Center Consolidation Project***

The Call Center Consolidation project is intended to consolidate our multiple call center environments onto one platform, lessening the number of vendors required to support it and reducing the number of ITSD-DOR staff required to support it. In the process, additional features and functionality can be recognized. Currently ITSD-DOR has three environments, each having its own support mechanism within ITSD-DOR, in addition to requiring interaction with three separate vendors. This call center consolidation will reduce software licensing and maintenance fees and reduce the cost and variety of dedicated hardware by eliminating redundant or over-lapping implementations. At the same time, this consolidation will allow the optimal utilization of vital technical staff resources.

## **ITSD Supporting the Department of Social Services**

### ***Network Migration***

Existing statewide IP networks will be migrated to the new telecommunications transport supplied by the NGN contractor. The new contract will allow the Department of Social Services to take advantage of new technologies by increasing the bandwidth to office sites. This increase in bandwidth supports the migration to web applications and facilitates departments sharing the transport; eliminating the need for some equipment. In addition to web applications, the increased bandwidth will allow video teleconferencing and Voice over IP to be implemented if the state so desires.

### ***Family and Children Electronic System (FACES)***

Develop and implement the Family and Children Electronic System (FACES) Resource and Financial Management deliverable.

### ***LIHEAP Energy Assistance System***

Develop and implement enhancements to the LIHEAP Energy Assistance system for the 2008 – 2009 season.

# 2008 Agency Planned Projects

## Department of Conservation

### ***Network Consolidation***

Agency staff located in US Department of Agriculture offices around the state have their own DSL circuits for connectivity back to state networks. Department of Natural Resources staff has also been required to move off the federal network and provide some other form of connectivity. In locations where both MDC and DNR staff are present in a USDA office, we will work in conjunction with DNR to provide one state data connection into the office, thus minimizing costs. Sharing opportunities are also being investigated at other offices where physical facilities exist within line-of-site and some form of wireless connectivity may suffice to link the offices.

### ***Integrated Data Framework***

Further development of the Integrated Data Framework will be accomplished in 2008 to provide the geographic-based reference to where work or dollars are spent. This year the pilot application will be supplied to two regions of the state for field testing of the application, enhancement, and ultimately to gauge user acceptance of the program.

### ***PC Replacement Process Enhancement***

Replacement of computers throughout the state is a labor intensive operation made more costly by the dispersed nature of agency staff. In order to gain efficiencies, a project for the drop shipping of computers to the installation site will be instituted. This project will involve preloading the computers with the appropriate software at the factory, shipping directly to the end user, and finalizing configuration and data transfer via remote control. A contractor will be engaged to remove all agency data and sell or recycle the old computers. Initial estimates indicate it will be possible to offset the labor of at least one FTE if this project is expanded to all computers in remote offices.

## Missouri State Highway Patrol

### ***Host Statewide Data Sharing Initiative***

Complete the project to develop a crime information central repository, local Records Management System data interfaces, and reporting software to give law enforcement agencies the ability to share and analyze the data. The Missouri Department of Public Safety has contracted with KCC Coplink for this development. This integrated system will be identified as the Missouri Data Exchange (MoDEX) and follow NIEM data standards to interface with the FBI's National Law Enforcement Data Exchange (NDEX).

The Missouri Statistical Analysis Center (SAC) will be responsible for interfacing the Coplink database to the Missouri Incident Based Reporting System (MIBRS) and any other data sources such as Traffic Arrest System/Driving While Intoxicated Tracking System (TAS/DWITS).

### ***Missouri Criminal Justice Modernization Project (MCJMP)***

Obtain contracts for the five modules of the Missouri Criminal Justice Modernization Project (MCJMP), Computerized Criminal History (CCH), Statewide Message Switch (SMS), Computer Assisted Dispatching (CAD), Mobile Computing Services (MCS), and Records Management System (RMS).

Complete the development of RFPs for the acquisition of a multi-phased application process. This project encompasses the RFP development only, including the full scope of the recently awarded contract with MTG Consulting Services to integrate CAD-Records Management and Mobile Computing into a single system.

### ***Revamp MSHP Website***

Complete the project to redesign the Missouri State Highway Patrol website. The redesign will include more interactive features and Fatality Total Statistics, along with the Missouri map on the front page and location information for the Highway Patrol's nine troop locations.

## **Missouri Lottery**

### ***Agency Debt Offsets and SFTP Server Implementation***

There are a number of agencies desiring to utilize a debt offset process with the Missouri Lottery in order to collect state-owned delinquencies from players winning lottery prizes. A system will be created in order to standardize this process. Identifying and creating this standard will allow the lottery to create future interfaces more efficiently, thus providing the requesting agencies better service and minimizing implementation schedules. Prior to this procedure, the lottery has been performing an automated debt offset for Social Services Division of Child Support Enforcement and manual offsets with other agencies. Those processes were the cornerstone on which this new system was built. This will, however, require some changes by other agencies, but they should be minimal and will result in improved service for these entities. Tied to this initiative, Missouri Lottery will establish an independent SFTP server for managing the data exchanges with these agencies. All existing data exchanges will also be converted to utilize this newer, more secure technology for managing data.

### ***Microsoft SQL Server 2000 Migration to 2005***

Missouri Lottery plans to upgrade in-house databases from Microsoft SQL Server 2000 to Microsoft SQL Server 2005. Moving to this version of the Microsoft database environment at this time will provide the opportunity to utilize many new features of the

product that specifically enhance performance, integrity and security of the business systems.

### ***Web Development***

Web development will be a priority for the upcoming year. There are currently two business units within Missouri Lottery that have identified the need for enhanced functionality and to consider the rebuilding of a legacy system. These development efforts will include new functionality that is designed to streamline processes and improve business efficiencies.

## **Department of Transportation**

### ***New Fleet Management System***

The goal of this project is to implement technology that will help produce better MoDOT fleet management decisions and to reduce the labor currently used to maintain the existing system. It will provide reports on: service orders, preventative maintenance, prior work history of equipment, equipment down time, and usage. In addition, it will forecast required preventative maintenance parts for just-in-time (JIT) ordering, recover costs of parts and labor under warranty and incorporate a Parts Inventory System.

The new Fleet Management System will enable better fleet purchasing, leasing, disposal, and maintenance decisions and allow MoDOT to improve the overall efficiency and effectiveness of our fleet purchasing and operations.

### ***GPS Reference Stations***

The GPS Reference Station program will provide a system of strategically located, permanently mounted, high precision, GPS Real-Time Kinematic (RTK) reference stations. It will network the reference stations with a server to verify data integrity, pass the data to the hand-held devices, and make the data available to the public via the web.

Another initiative is to enable MoDOT surveyors to accurately calculate vehicle positions in real time through several related projects including a needs analysis, a bid and selection process, implementing a pilot project in the St. Louis area, and rolling out the solution statewide.

### ***Message Boards on Interstates***

This work effort will keep the traveling public informed of road conditions, construction zone activities, traffic delays, detours and Amber Alerts. Currently, 6 signs are being planned for deployment along I-55, which will be managed by Gateway Guide. MoDOT has also planned to deploy another 6 signs along I-29 and I-35 to be managed by Kansas City Scout. When this effort is completed, MoDOT will have a total of 54 message boards throughout the state of Missouri.

### ***Interstate Wireless Hotspots***

MoDOT plans to provide wireless Internet connectivity to the public and to the Motor Carrier industry at MoDOT interstate welcome centers. This work effort will enable the traveling public to access MoDOT's web site while visiting Missouri interstate rest areas as well as allow the Motor Carrier industry to conduct business with MoDOT over the Internet. The traveling public will be informed of road conditions and construction zone activities. Motor Carrier industry operators will also be able to obtain permits and conduct other business with MoDOT at their convenience.

## **Office of the State Treasurer**

### ***SQL Server Migration***

The State Treasurers Office will initiate migration of older SQL Server applications to the latest SQL Server database technology. This will move the office from older technologies to a more current, secure technology. With enhanced migration features, SQL Server will allow better development integration as well as improved data access for end users. The newer version of SQL Server has improved reporting tools for database administrators to better analyze and optimize database design and performance. SQL Server also provides greater system availability to users for disaster recovery through high availability technologies.

### ***Online ACH Receipt System***

To increase efficiency within the State Treasurers Office - Division of Banking; STO will interface with Missouri banks via an electronic receipt system. To support the growing demands for Automated Clearing House (ACH) requests and accountability, this system will allow the banking division to balance and track all bank ACH receipt files. The system will eliminate various time-consuming/labor-intensive processes and will be available statewide via a web interface portal to participating state agencies.

### ***Enterprise Disaster Recovery with Next Generation Network Integration***

As Missouri State Treasurers Office (STO) is becoming increasingly dependent on technology and the Internet, it is the duty of Information Technology (IT) Division to protect this critical infrastructure from damage. To help meet this obligation, the IT Division has played a key role in revising the disaster recovery plan to include greater redundancy and introduce more clarity to all parties involved when dealing with a disaster of any size. To avoid spending state dollars, we are working with other state agencies in the event of a disaster to provide storage and services. In 2008 STO will look for ways to integrate STO services and our current disaster recovery plan with the State of Missouri's Next Generation Network (NGN). This will allow for faster data transfers at a greater cost savings to the State of Missouri.